Dr. Magdalene N. Ngeve

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https://magdalenengeve.weebly.com

Education

2017	Ph.D. in Biology (Conservation Ecology and Genetics),
	Vrije Universiteit Brussel, Belgium
	Advisors: Prof. Dr. Ludwig Triest & Prof. Dr. Nico Koedam
2013	M.S in Biology (Environment, Biodiversity and Ecosystems),
	Vrije Universiteit Brussel, Belgium
	Advisor: Prof. Dr. Marc Kochzius
2010	B.S in Zoology (minor: Medical Laboratory Technology),
	University of Buea, Cameroon
	Advisor: Dr. Konje Christina

Research a	nd Professional Experience
2021-Present	Lecturer, Department of Entomology, University of Maryland, College Park
	Supervisor: Prof. Dr. Leslie Pick
	Full time 40+ hours per week
2021-Present	Maryland's AGEP PROMISE Academy Fellow, University of Maryland, College Park (an NSF- funded program to diversify biological faculty within the University System of Maryland)
	Director: Prof. Dr. Robin Cresiski
	Supervisor: Prof. Dr. Maile Neel
2018-2021	University of Maryland's President's Postdoctoral Fellow (Research Associate)
	University of Maryland, College Park
	Supervisor: Prof. Dr. Maile Neel
	Full time 40+ hours per week
2018-2021	Adjunct Instructor, University of Maryland, College Park
	ENTM747 Pollinator Health; ENTM720 Native, Invasive, and Exotic Species
	Part time ~ 10 hours per week
2013-2017	Graduate Student Researcher*, Vrije Universiteit Brussel, Belgium
	Supervisor: Prof. Dr. Ludwig Triest
	Full time ~ 40 hours per week
2013-2017	*Teaching Assistant, Vrije Universiteit Brussel, Belgium
	Supervisor: Prof. Dr. Ludwig Triest

	Part time ~ 5 hours per week	
2014-2016	Fieldwork and field experiment coordinator	
2015-2016	Educational Campaign and capacity building, rural mangrove communities	
2011-2011	Latex Laboratory Technician, IRAD Cameroon – Ekona Station	
2009-2011	Medical Laboratory Technician, South West Regional Hospital Annex, Buea	
Volunteer experience and Internships		
2016-2018	Research Coordinator: Mangrove Ecosystem Program, RCESD, Cameroon	
2012	Ecology Intern, Vrije Universiteit Brussel, Belgium	
2009-2010 * Activities wh	Counselor, SW Regional Hospital Annex, Buea, Cameroon ich were part of my responsibilities as a graduate student	

Relevant Professional expertise

- 1. Research Systems: Coastal (intertidal), riparian, and riverine ecosystems
- **2. Research approaches**: Field experimentation (e.g., hydrochorous propagule dispersal) and field sampling (plant material)

Multiple-geographical scale research

Integrating local ecological knowledge and scientific knowledge for restoration and conservation Grassroot restoration/conservation projects (BeeMangrove)

Data curation and analytical skills

Team-based and independent research skills

- 3. Manuscript and grant writing
- **4. Outreach**: Educational workshop and mentorship Scientific presentation

Teaching undergraduate and graduate levels courses and labs

5. Laboratory skills: Molecular techniques (nucleic acid extraction and purification; DNA cloning, Polymerase Chain Reaction (PCR), Next Generation Sequencing (NGS) library preparation and sequencing.

Elementary analyses: Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Sample **lyophilization and digestion**: CEM MARS 5 oven

- **6. Bioinformatics** skills, bash/batch scripting and coding in *R*, for NGS data processing
- 7. Management: Multi-project management and realization

Scientific Contribution

Publications in Peer-Reviewed Journals and in preparation

- Marsden BW, **Ngeve** MN, Neel MC (2021). Assessing the potential for extrapolating restoration and management based on genetic diversity to ecologically similar but geographically isolated locations in the submersed aquatic plant *Vallisneria americana*. *Estuaries and Coasts*.
- Ngeve MN, Koedam N., & Triest L (2021). Genotypes of Rhizophora propagules from a nonmangrove beach provide evidence of recent long-distance dispersal. Frontiers in Conservation Science
- Triest L, Van der Stocken T, De Ryck D, Kochzius M, Lorent S, **Ngeve** M, Ratsimbazafy HA, Sierens T, van der Ven R, & Koedam N (2021). Expansion of the mangrove species *Rhizophora mucronata* in the Western Indian Ocean launched contrasting genetic patterns. *Scientific Reports*.
- **Ngeve** MN, Koedam N, & Triest L (2020). Runaway fathers? Limited pollen dispersal and mating system in *Rhizophora racemosa* populations of a disturbed mangrove estuary. *Aquatic Botany*.

- **Ngeve** MN, Van der Stocken T, Menemenlis D, Koedam N, & Triest L (2017). Hidden founders? Strong bottlenecks and fine-scale genetic structure in mangrove populations of the Cameroon Estuary complex. *Hydrobiologia*.
- Ngeve MN, Van der Stocken T, Sierens T, Koedam N, & Triest L (2017). Bidirectional gene flow on a river mangrove landscape and between-catchment dispersal of *Rhizophora racemosa* (Rhizophoraceae). *Hydrobiologia*.
- **Ngeve** MN, Van der Stocken T, Menemenlis D, Koedam N, & Triest L (2016). Contrasting effects of historical sea level rise and contemporary ocean currents on regional gene flow of *Rhizophora racemosa* in Eastern Atlantic mangroves. *Plos One*.
- **Ngeve** MN, Leermakers M, Elskens M & Marc Kochzius (2015). Assessment of trace metal pollution in sediments and intertidal fauna at the coast of Cameroon. *Environ Monit Assess*.
- **Ngeve** MN, Engelhardt KAM, Gray M, & Neel MC (*in prep*). Swimming against the tide: Patterns of Genetic connectivity and discontinuity among *Vallisneria americana* populations of a periodically disturbed Riverbed (pdf available upon request).
- **Ngeve** MN, Engelhardt KAM, Gray M, &Neel MC (*in prep*). Calm after the storm? Similar patterns of Genetic variation in *Vallisneria americana* populations in the lower Hudson Estuary before and after Hurricane Irene and Tropical Storm Lee (pdf available upon request).
- **Ngeve** MN, Engelhardt KAM, Gray M, &Neel MC (*in prep*). When high connectivity does not result in high genetic diversity: Patterns of genotypic and genetic diversity in *Vallisneria americana* populations of highly disturbed riverscape (pdf available upon request).

Oral and Poster presentations

- Ngeve MN. Calm after the storm? Genetic variability in Vallisneria americana populations of the lower Hudson Estuary before and after 2011 Hurricane Irene and Tropical Storm Lee. ESA Annual Meeting (Online audio-enabled poster presentation). August 2nd - 6th, 2021.
- **Ngeve MN**. Calm after the storm? Genetic variability in *Vallisneria americana* populations of the lower Hudson Estuary before and after 2011 Hurricane Irene and Tropical Storm Lee. ESA Annual Meeting (Online oral presentation). August 2nd 6th, 2020.
- Ngeve MN. Patterns and scales of mangrove genetic connectivity, Entomology Spring Semester Seminar Series, University of Maryland, College Park. February 8, 2019.
- **Ngeve MN**, Van der Stocken T, Koedam N, & Triest L. Patterns of regional- and local- scale genetic connectivity in Eastern Atlantic mangroves. VLIZ Marine Science Day 2017, Brugge, Belgium. March 3, 2017. (Oral presentation, 5' pitch)
- Tonné N, Van der Stocken T, van Zon A, De Ryck D, **Ngeve M**, Van Nedervelde F, Venterink HO, Dahdouh-Guebas F, Triest L., Koedam N. Coming of age The mangrove propagule, parental investment and the dual functionality towards autonomy and establishment. European Conference of Tropical Ecology Brussels, Belgium. February 7, 2017. (Oral presentation).
- **Ngeve MN**, Van der Stocken T, Koedam N, & Triest L. Hidden founders or high connectivity or both? Investigating the expansion pathway of mangroves along the Cameroonian coastline. European Conference of Tropical Ecology Brussels, Belgium. February 9, 2017. (Oral presentation).
- **Ngeve MN**, Van der Stocken T, Menemenlis D, Koedam N, & Triest L. Contrasting effects of historical sea level rise and contemporary ocean currents on regional gene flow of *Rhizophora racemosa* in Eastern Atlantic mangroves. The Mangrove & Macrobenthos Meeting (MMM4), Florida, USA. July 18- 22, 2016. (Poster presentation).
- **Ngeve MN,** Sierens T, Koedam N, & Triest L. Bidirectional gene flow on a river mangrove landscape and between-catchment dispersal of *Rhizophora racemosa* (Rhizophoraceae). Book of

- abstracts European conference of tropical ecology Göttingen, Germany. 23 February 2016 (Oral presentation).
- Ngeve MN, Sierens T, Koedam N, & Triest L. Connected but not exactly one: The genetic hierarchy in mangroves of a river linear landscape in Cameroon is caused by hydrological factors. Book of abstracts PhD day Doctoral School of Natural Sciences and (Bioscience) Engineering (NSE). Brussels, Belgium 22 May 2015. (Poster & pitch presentation).
- Ngeve MN., Elskens, M., Leermakers, M., Kochzius, M. Influence of trace metal and organic pollution on the community structure of intertidal gastropods at the coast of Cameroon, in: Mees, J. et al. (Ed.) (2013). Book of abstracts VLIZ Young Marine Scientists' Day. Brugge, Belgium, 15 February 2013. VLIZ Special Publication, 63: pp. 74. (Poster presentation).

Awards, Grants, and Fellowships

2021 - Present	Maryland's AGEP PROMISE Academy Fellow, University of Maryland, College
	Park (an NSF- funded program to diversify biological faculty within the University System
	of Maryland)
2019-2021	University of Maryland's President's Postdoctoral Fellowship Program
	Postdoctoral Fellowship (> \$115,000)
2013-2017	Vrije Universiteit Brussel-International Relations and Mobility Office
	Doctoral Fellowship (> €150,000)
2015 -2016	Rufford Foundation, United Kingdom
	First and Second Small Grant (£10000)
2011-2013	Vrije Universiteit Brussel-International Relations and Mobility Office
	Masters Scholarship (> €55, 000).
2007-2010	Cameroon Government Presidential Excellence Award
	University of Buea (~ \$300)

Language Proficiency

English	Full professional proficiency/mother tongue
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French Moderate proficiency (in training)
Dutch Elementary proficiency (in training)

R Elementary programming

Teaching and Mentoring Experience

2020	Guest lecture, Roosevelt University – Genetics introductory class
	Disturbance ecology through the lens of a population geneticists: basic concepts, relevance, and case-study
2018-present	Adjunct (online) Lecturer, University of Maryland
	ENTM747: "Pollinator Health"
	ENTM 720: "Native, Invasive, and Exotic Species"
2013-2017	Laboratory Instructor, Vrije Universiteit Brussel, Belgium
	"Conservation Genetics" practical (masters and 3rd bachelor levels)
2014-2016	Teaching assistant, Vrije Universiteit Brussel

Molecular Ecology" 3rd year bachelor class

2015-2016 Mentoring students' research projects

One Masters and four Bachelor students

2003-2015 Peer-Education, Buea, Cameroon

Education and mentoring of young girls and teen parents in rural areas

- Relevance of education

- Prevention of teenage pregnancies

- Prevention of sexually transmitted infections

Professional Service

Journal Reviews: Journal of Ecology; Marine Ecology Progress Series; PLOS ONE; Forests; Plant Ecology & Diversity; Environmental Monitoring Assessment

References

Dr. Maile Neel (Postdoc supervisor, Director of the Norton-Brown Herbarium, Professor)
University of Maryland College Park, Department of Plant Science and Landscape Architecture & Department of Entomology, AGNR & CMNS mneel@umd.edu | (301) 405 9780

Dr. Ludwig Triest (Ph.D. advisor, Professor)

Vrije Universiteit Brussel, Belgium, Department of Biology and Bioengineering Sciences ludwig.triest@vub.be| +32-2-6293421

Dr. Nico Koedam (PhD co-advisor, Professor))

Vrije Universiteit Brussel, Belgium, Department of Biology and Bioengineering Sciences nikoedam@vub.be | +32-2-6293413

Dr. Marcia Shofner (Director MPAE Program, Senior Lecturer)
University of Maryland College Park, Department of Entomology, CMNS mshofner@umd.edu | (301) 405 3938

Dr. Emily Dangremond (Assistant Professor)
Roosevelt University, Department of Biological, Chemical and Physical Sciences edangremond@roosevelt.edu | (847) 330 4519